which produces an inevitable loss of perspective. Moreover, the details which are given, and which give an air of erudition to the book, are not accompanied with the bibliographical references which are necessary to enable the reader to verify them or to follow them up further. The treatment is, in fact, in many parts one-sided and superficial.

The second edition is rewritten, but not much new material is added. It contains only ten pages more than the first edition and these seem to be largely taken up with amplification rather than with addition. Such glaring deficiencies appear as a failure to mention Dearborn or Huey in the account of reading, or of the work of Cornman or Rice in arithmetic. The book will be of use among American readers only to specialists in experimental pedagogy.

## MATHEMATICS

*A Manual of Laboratory Exercises in Physics.* By FREDERICK R. GORTON. New York: D. Appleton & Co., 1912. Pp. xv+166.

A book written primarily to accompany the author's *High School Course in Physics*, although it can be used with any good text on secondary physics. There are more exercises presented than can be performed in an ordinary course of one year. There are fifty-two exercises, many of which are presented in two or more ways. This gives the instructor considerable latitude in the selection of the particular exercises for his course. The same general order is given for each exercise, which is: name, object, materials, description, and lastly, a set of review questions.

The descriptions are written in a clear and understandable way, so that the pupil will have little difficulty in his work. A price list of the apparatus used in the book is appended. There are, too, a number of tables of constants used in the exercises. There are also fine zinc etchings of a protractor, vernier scale, and English metric scale printed on a good quality of cardboard. These are to be cut out and used by the pupil as occasion requires. There are fifty-five drawings and figures. The book is well made and is intended for use.

*Plane Geometry.* By WILLIAM BETZ and HARRISON E. WEBB. Boston: Ginn & Co., 1912. Pp. 332.

This book is another of the few texts on geometry that have appeared in recent years that make a wide departure from the traditional treatment of the subject. To those teachers who are not afraid to experiment in the attempt to psychologize the teaching of geometry and to make it more practical this new text will make an appeal.

The traditional formal course is preceded in the present volume by five or six weeks of work on concrete or observational geometry. Many teachers have found this a successful plan, in that it gives skill early in the course in the accurate construction of the figures of geometry, and in that it vitalizes the